



Department of Energy

Recent Initiative: Chronic Beryllium Disease Awareness Card and Web Site

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October 2012

4th International Symposium on Beryllium Particulates and Their Detection¹



Disclaimer



I do not have any financial or commercial interest in the materials, methods, equipment, pharmaceuticals I will be presenting.



Objective



To present a recent DOE HSS initiative in developing the CBD Awareness Card and Web site. This is part of HSS' corporate outreach initiative to provide information to the worker community, as well as the medical community, and to enhance the likelihood of timely diagnosis and treatment of potential CBD cases.



Office of Worker Screening and Compensation Support



Implements the Former Worker Medical Screening Program (FWP) and supports the Department of Labor (DOL) in the implementation of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA).



DOE's Core Mandate Under EEOICPA



Work on behalf of the program claimants to ensure that all available worker and facility records and data are provided to DOL, NIOSH, the Advisory Board, or Department of Justice.



DOE's Responsibilities



1. Respond to DOL and NIOSH requests for information related to individual claims. (employment verification, exposure records).
2. Provide support and assistance to DOL, NIOSH, and Advisory Board on large-scale research and site characterization projects through records research and retrieval efforts at various DOE sites.
3. Conduct research, in coordination with DOL and NIOSH, on issues related to covered facilities designations.

For more information about DOE's responsibilities under EEOICPA, please call: 202-586-2407 or visit:

www.hss.energy.gov/HealthSafety/FWSP/Advocacy/



FWP Background



History:

- Established following the issuance of the National Defense Authorization Act of Fiscal Year 1993 (P.L. 102-484), authorizing DOE to:

“...establish and carry out a program for the identification and on-going medical evaluation of...former DOE employees who are subject to significant health risks as a result of the exposure of such employees to hazardous or radioactive substances during such employment....”
- First former worker projects initiated in 1996.
- Program now serves **all** former Federal, contractor, and subcontractor workers from **all** DOE sites in locations close to their residences.



FWP Initiatives



- Consortia of unions, universities, and occupational health clinics providing medical screening.
- Provides no-cost medical screenings to all former DOE Federal, contractor, and subcontractor employees.
- Projects follow standardized medical screening protocol.
- The screening focuses on the early detection of health conditions that may be related to occupational exposures such as beryllium, asbestos, radiation, silica, etc.



FWP Initiatives (cont.)



- Medical screenings include a physical exam, hearing test, blood and urine tests, and other special tests depending on the individual's work and exposure history.
- Develop informational and informed consent materials and ensure review and approval by appropriate Institutional Review Boards.
- Individuals with abnormal findings are referred to their personal physicians and if applicable, to DOL EEOICP.
- Re-screen exams are offered every three years.

For more information about FWP, please call: 202-586-2407 or visit: www.hss.energy.gov/HealthSafety/FWSP/formerworkermed/



CBD Awareness Card and Web Site



CBD Awareness Card and Web Site Background



- Beryllium is a metal used in a number of industries—including the defense, aerospace, automotive, medical, and electronics industries—because of its exceptional strength, stability, and heat-absorbing capability.
- Since the early 1940s, beryllium has been recognized as posing an occupational hazard in manufacturing and production settings.
- The primary health effects of interest in connection with beryllium are beryllium sensitization (BeS), chronic beryllium disease (CBD), and lung cancer.



Background (cont.)



Started this project to provide an informational resource to:

- Workers who may have been exposed to Beryllium (Be).
- Health care providers who are not well versed in Be, the history, symptoms, treatments or associated conditions.
- Individuals with CBD who are concerned about symptoms and consequential conditions that could be related to CBD or its treatment.



Review Process



Assembled physicians who collectively have knowledge of
CBD

- **John R. Balmes**, MD (Professor, University of California San Francisco, San Francisco General Hospital)
- **Laurence Fuortes**, MD, MPH (Professor, Department of Occupational and Environmental Health, College of Public Health, University of Iowa)
- **John McInerney**, MD (Oak Ridge Associated Universities , Technical Director for Surveillance Programs)
- **Lisa A Maier**, MD, MSPH, FCCP (Chief, Division of Environmental and Occupational Health Sciences, National Jewish Health)
- **Lee Newman**, MD, MA (Professor, Colorado School of Public Health and School of Medicine, Director, NIOSH Mountain and Plains Education and Research Center, University of Colorado Denver)
- **Milton Rossman**, MD (Professor of Medicine, University of Pennsylvania Medical Center, Pulmonary, Allergy and Critical Care Division)



Review Process



The review focused on the following:


- The symptoms of CBD and the consequential conditions of CBD;
- The best way of validating these symptoms and consequential conditions; and
- The best venue for distributing a symptoms checklist and a consequential conditions checklist through DOE/HSS and/or DOL/EEOICP.



CBD Awareness Card



Chronic Beryllium Disease (CBD) Information Card

**Chronic Beryllium Disease**
Awareness

Ask your physician about beryllium toxicity if you may have been occupationally exposed to beryllium and have a chronic respiratory disorder that has lasted more than 3 months, with any of the following:

Symptoms

1. Cough	3. Fatigue
2. Shortness of breath	4. Night Sweats

In addition, if you have been diagnosed with any of the following conditions, you should consider an evaluation for Chronic Beryllium Disease (CBD):


Clinical Conditions

1. Enlarged lymph nodes (adenopathy) seen on Chest X-ray or CT scan
2. Scarring on both lungs (chronic infiltrates) on Chest X-ray or CT scan, called "chronic bilateral pulmonary infiltrates"
3. Lung or skin biopsy reports of granulomatous inflammation
4. Prior diagnosis of chronic skin or pulmonary sarcoidosis


Beryllium Sensitization

Patients who have been diagnosed with "Beryllium Sensitization" (cellular allergy) are asymptomatic and not physically impaired but are at increased risk for the development of CBD. See above.

Should you and your physician want more in depth information, please visit the following link:
<http://www.hss.doe.gov/HealthSafety/fwsp/advocacy/cbd/>



FRONT

**Chronic Beryllium Disease**
Awareness

If you have already been diagnosed with CBD, there are a number of consequential illnesses that may result from CBD, some of which include:

1. Cor Pulmonale	4. Beryllium Dermatitis/Skin Nodules
2. Pulmonary Hypertension	5. Anxiety and Depression
3. Respiratory Failure	


In most patients with CBD, immunosuppressive medications can stop the progression of the disease and in some cases reverse the abnormalities. Some of these include oral or inhaled corticosteroids, bronchodilators, methotrexate, azathioprine, mycophenolate mofetil, and anti-TNF-alpha inhibitors.

Medications that are used to treat CBD can cause certain consequential conditions or can aggravate other pre-existing medical conditions. If you are being treated for CBD, ask your doctor how the medicine might affect you. Consequential conditions of CBD treatment can include, but are not limited to, the following:

1. Infection	7. Cataracts
2. Anxiety and Depression	8. Hyperlipidemia
3. Diabetes and Related Consequences	9. Insomnia
4. Hypertension	10. Gastroesophageal Reflux Disorder
5. Osteoporosis	11. Weight Gain and Obesity
6. Glaucoma	

Early and accurate diagnosis of CBD and related conditions is important in providing an effective treatment.

Should you and your physician want more in depth information, please visit the following link:
<http://www.hss.doe.gov/HealthSafety/fwsp/advocacy/cbd/>



BACK

Developed by:

Office of Health, Safety and Security



Initiatives



- Put together a Web page to provide in depth information about
 - ✓ the CBD symptoms and the consequential conditions or its treatment.
 - ✓ Resources to Workers.
 - ✓ Resources clinicians, healthcare providers and researchers.



Side Effects of CBD Treatment



In addition to consequential conditions of CBD, there are also consequential conditions (or side effects) as a result of CBD treatments. *Not all of these consequential conditions necessarily result from CBD or its treatment even if an individual has CBD.*



Side Effects of CBD Treatment (cont.)



- CBD is treated differently for each patient.
- There are a number of potential side effects of CBD's pharmaceutical treatments which include clinical findings, or medical conditions and depend on the therapy used.
- Links to each medication used to treat CBD provides useful information about its uses and possible side effects that may be associated with specific CBD treatments (i.e. Prednisone).



Side Effects of CBD Treatment (cont.)



- Website currently has 13 prescription medications that are used in the treatment of CBD, such as
 - Prednisone
 - Methotrexate
 - Dexamethasone
 - Bronchodilators
 - Steroids (also called Corticosteroids and Glucocorticoids)



Side Effects of CBD Treatment (cont.)



- When you account for duplication, the total for all side effects of the 13 drugs listed contains 80 conditions.
- Source is the NIH Medline plus; very reputable source, and something that should be very recognizable to your local physician.



Website Demo



- Live Demo -- DOE-HSS CBD Awareness Website

<http://www.hss.doe.gov/healthsafety/fwsp/advocacy/cbd/index.htm>



Questions?

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